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ABSTRACT

Evidence shows that there are differences in the ways in which men and women speak. It has also been well documented that females are generally ahead of males in language acquisition and are less often diagnosed as speech pathologic. A review of the research gives some indication of the reasons for the development of sex differences in spoken language. The fact that girls mature earlier than boys has direct implications for language acquisition. Auditory sensitivity and oral behavior in infancy is not the same for boys and girls. In addition to the biological factors, developmental, psychological and sociological influences play their role. Parent-child interactions from infancy onward point to differential treatment of boys and girls. In early childhood both parents and teachers may encourage male or female patterns of communication in children. In later childhood and adolescence, motivations for speech style vary according to sex. Peer influences also affect language use. The developing male and female roles with regard to power and "micropolitics" may exert the major influence on developing sex differences in spoken language. These findings raise a further question: Will spoken language differences disappear as equality between the sexes is reached? (Author/AMH)

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SOME EXPLANATIONS FOR SEX DIFFERENCES IN LANGUAGE LEARNING

What accounts for the development of sex differences in spoken language? Basically there are two issues. One, typically girls acquire spoken language at a rate which is different from boys. Two, there is growing evidence that boys and girls are acquiring variations of the same basic language. The nature of "genderlects... systems of co-occurring, sex-linked linguistic signals" (Kramer, 1974b, 14) will be explored in detail during other sessions of this conference. For our purposes it is sufficient to acknowledge that in all known language groups, at least minimal distinctions exist in male and female speech.

Although the two issues above are not the same, similar explanations may account for both phenomena.

Let us look first at the biological factors which influence language learning. Many writers have discussed the development of language as a primarily biological function. Lenneberg (1964, p. 85) a major contributor to this point of view suggests that "language is due to as yet unknown species-specific biological capacities."

In a 1953 article, Dorothea McCarthy reviewed "Some possible explanations of sex differences in language development and disorders." (p. 155) She suggests that in many cases girls mature earlier than boys and language maturation is one aspect of this. She goes on to note environmental factors which are then superimposed upon this genetic basis which then account for the differences seen later in life. This will be discussed in more detail later in this paper.

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Eleanor Maccoby (1966) also noted that "physiologically, girls mature faster than boys. And because certain aspects of intellectual development cannot occur until the relevant physical structures are complete, we might expect girls to develop some abilities earlier than boys. For example, at birth the cortical structures relevant to speech are not fully formed. Insofar as speech must wait until they are, we might expect girls to talk sooner than boys" (p. 39).

Garvey and Mutton (1973) have suggested that certain sex chromosome aberrations may be related to abnormal speech development. They found that "when chromosome studies were made on nine boys with grossly defective expressive speech, but with normal levels of language comprehension, three were found to have abnormal karyotypes... these results and data in published reports suggest that sex chromosome aneuploidy may play an important role in delaying and upsetting the development of higher neurological functions, for example those involved in communication and psychosocial adaptation and behavior."

In a 1974 study, Beverly Fagot cited some other works which point to specific inate sexual differences which may be related to language. She noted that Watson in 1969 found that infant girls show greater sensitivity to sound. This relates to infant girls' superiority in dichotic listening tasks and reported in 1974 by Berlin at a symposium. Korner (1974, p. 111) on the other hand reported "no sex differences have been found in auditory receptivity."

Female infants have been found to be more sensitive to stimuli other than auditory. Korner (1974) reviewed what literature she found available on sex differences in newborns and commented on its paucity. Korner cited studies which demonstrated that female infants aged two weeks are more sensitive to skin contact than boys and have generally greater tactile sensitivity.

An especially interesting area of sensory sensitivity for the purpose of the present discussion is in the oral area. Korner (1974) cited numerous studies which suggest that females (both human and animal) are more responsive to taste (sweetened formula) and engage in more "mouth searching" behavior than males.

Other oral behaviors that differed between the sexes are in frequency of reflex smiling. Korner (1974) reported that one study found "the rate of reflex smiles during irregular sleep was almost triple that of males." (1974, p. 112) Females have also been found to show a "rhythmical clonus of the tongue" (1974, p. 112) during bottle feedings more frequently than males. Korner notes that one researcher, Wolff, believes that these oral behaviors are of central neural origin.

Some other behavioral differences reviewed by Korner are that males were able to lift their heads higher from the prone position, have greater tendency to startle and over-all were larger and apparently demonstrated more muscular strength than females.

Matheny and Bruggeman (1973) administered the Templin-Darley Test of Articulation to 101 same-sex twin pairs, 22 opposite-sex twin pairs and 94 siblings of twins between the ages of three and eight years. "Comparisons between females and males constituting the opposite-sex twin pairs might... be related to the development of lateralization since females establish ear, motor and speech dominance earlier than boys" (p. 447).

Huessy, Marshall and Gendron (1973) studied hyperkinesis in 500 children from grades 2 through 5. They cited the work of Prechty who observed "an organic pre- and paranatal etiology and indicates that 20 percent of all newborn boys and 10 percent of newborn girls show signs of cerebral dysfunction" (p. 301).

Davie (1973) also concerned with behavior problems in school referred to the developmental lag of boys. "For example, boys are slower to attain sphincter control; their speech development is more often retarded; they are more often backward in reading; and as a group they show a relative lack of the motor control necessary for writing and drawing" (p. 46).

The bulk of the literature which attempts to explain differences in language between the sexes points to cultural and environmental factors. I will review research related to infant and child home care, school and peer effects, and general societal influences.

Ferguson (1971) in the United States reported that mothers tend to vocalize more with their girl babies than with infant boys. Korner (1974) cited literature to support this contention. She noted that Thomas et al. in 1972 found that primiparous mothers especially talked to and smiled at their baby girls significantly more during feeding than they did with boys. Korner also reported a study done with three-month old infants in which mothers were found to "respond to girls by talking, looking, and offering a pacifier, while they tended to hold close their baby boys or to offer them distractions" (1974, p. 110). Korner noted similar results in a study in 1972 by Lewis in which again mothers of three-month old infants were found to vocalize more frequently to girls than to boys giving boys "more proximal and girls more distal stimulation" (1974, p. 110). It is interesting that girl infants vocalized more in response to their mothers than did boys and that boys showed less variation in their vocalization (Cherry, 1975).

Robinson (1972, p. 181) maintains that the major determinants of the verbal behavior of children are the learning opportunitites provided by the mother. Stayton, Hogan and Ainsworth (1971) studied interactions involving verbal commands and physical intervention between mothers and their infants

and found that "the mother of an infant son, more than the mother of an infant daughter, attempts to train, discipline and control her child" (p. 1065). In contrast to this, Bernstein (1971) in a study of middle class British mothers and children found that these mothers tended to be more coercive over girls than boys and to explain less to their girl children than to their boys. Bernstein suggests that "the early socialization of the middle class girls may well be influenced by the mothers' perception of the difference between the boy's and girl's future adult role" (In Brandis and Henderson, 1971, p. 109). Bernstein has observed that in working class families older girls take on "mothering roles combined with a mediating role between parents and siblings... Girls are likely to have to rely upon forms of control based rather more upon linguistically elaborated meanings than upon physical coercion... The older working class girl is likely to serve as a language model for younger girls in the family. It is very possible that the large sex differences in the use of adjectives and a move toward the noun within the working class sample may be a reflection of the older girl siblings" (p. 53). It will be observed that Bernstein and Stayton et al. found different patterns of language behavior between mothers and their children. Perhaps some of the differences may be expalined by noting that the Stayton study was done in the United States, while Bernstein worked in England.

Around age two years, girls were more likely to be involved in true conversations or dialogues with their mothers than were boys of the same age according to recent study by Cherry and Lewis (Cherry, 1975).

In an experiment dealing with training low income black mothers to engage in "Toy Talk" with their pre-school children, Greathouse (1973) found that youngsters in the program gained in verbal facility, vocabulary growth and usage of elaborative language patterns. "Over-all results of Toy Talk indicated

more teaching-learning can occur in the home than previously assumed" (p. 3455-A).

Labov (1971) addressed himself to the question of how language differences are learned and suggested four major influences: the family, the peer group, the school, and the job. Family influences have been reviewed above. Peer influences are less well documented but one study by Labov and others of "peer group interaction in urban areas confirm(s) a large body of anecdotal evidence that preadolescent and adolescent peer groups exert strong pressures for linguistic conformity" (p. 214). Labov also noted that "within the peer group, we find that there is a rich development of special vocabulary: taboo language, slang and argot, rhymes and rituals of varied sorts. Narrative skills are developed--skills in joke telling, various types of rhymes, chants and songs: all of these skills are differentially rewarded by the members of the group" (p. 214).

The influences of school upon language usage have received more attention. As early as nursery school, girls are involved in more positive verbal interactions with teachers than are boys (Cherry, 1975). Davie (1973) noted that in addition to such direct linguistic directives as "Girls don't fight" and "Boys do not cry" the language model in the school for both boys and girls has most often been female. In additon to modeling, it is in school that children are taught in a more formal fashion what speech and language behaviors are expected from them. This female model for school age boys may provide some difficulty or conflict (Sole, 1976, p. 147). Lakoff (1975) believes boys use women's language until they are about ten years old when they learn their own masculine tongue.

Slobin (1967) reported the results of various studies that tend to suggest cultural variables involved in language. Anastasi and de Jesus in

1953 found girls superior in language development to boys in a sample of white children in New York City. In 1953, Anastasi and D'Angelo noted that boys were superior in language development in a sample of black children in New York City. By contrast, boys in a black lower class sample in Detroit were inferior linguistically to their female counterparts. Slobin concludes "it seems quite evident that the causes for these differential development rates are social, but we have too little information about relevant features of the social environment to draw any conclusions" (p. xi).

Many writers have suggested that girls have different linguistic objectives from boys. Robinson suggests that "one untested suggestion is that normative sex roles may be relevant such that while it is respectable and perhaps admirable for working class girls to be 'good at alnguage,' such skills might be considered unmanly in boys, being seen as incompatible with other positively valued attributes such as toughness, mechanical abilities and physical prowess" (In Bailey and Robinson, 1973, p. 62). Shuy state similar ideas this way: "... almost all males who grew up in working-class communities can probably remember their adolescent need to speak with masculinity, particularly if there was any question whatsoever about their physical prowess, their ability as athletes or if they were tortured by the anomaly of a relatively late development of facial hair and a deeper voice. Masculinity, they discovered, could be expressed by a choice of vocabulary, grammar, and pronunciation even after their bodies had unceremoniously failed them" (In Bailey and Robinson, 1973, p. 304).

Labov (1971) suggests that "the outstanding differences that we find (between the sexes with regard to language) revolve about the matter of attitudes toward non-standard language forms. In middle-class groups, women generally show much less familiarity with and much less tolerance for non-

standard grammar and taboo. Whereas most men can serve as excellent informants, passive or active for non-standard usage (double negatives, etc.) many women cannot do so. In cases where speakers show a stylistic shift from one value of a variable to another womenshow much more extreme shifts than men. Many middle-class women are critical of their husbands' speech and find it difficult to recognize the functional need for less cultivated speech patterns in daily business. This difference in the sexes does not seem to exist in rural or lower-class urban groups" (pp. 207-8).

When viewing language as part of more general behavior it is appropriate to note that over-all sex-role concept formulation may be related to gender-associated language use. Castner (1940) reported that most three-year-olds correctly answered the question "Are you a little girl or a little boy?" While the majority of two and a half year old did not answer correctly. Kohlbergy (1966) reports that both boys and girls have a well-established pattern of sex-typing of activities, toys, and objects by age four, with a ceiling reached for boys at about age seven, and a less clear trend for girls between four and seven years.

Vocabulary differences may reflect involvement in traditionally male or female occupations.

Even more broadly, the questioning, hesitant intonation of women, their softer voices, the fact that they are more frequently interrupted, and their greater use of polite forms, all point to the subservient role that women have played for centuries. Thorne and Henley (1975) believe that "language helps enact and transmit every type of inequality, including that between the sexes; it it spart of the 'micro-political structure' that helps maintain the larger political-economical structure" (p. 15). Similarly,

Trent (1970) states that "symbolic interaction systems are equivalent to the social-cultural life world of society" (p. 218).

Civilization today is so much a product of so many factors it does does not seem rationale to suggest that behavior of any kind is due to any one cause. What seems most appropriate is to acknowledge an interaction resulting in observable behavior. For example, Korner (1974) believes that "while sex role expectations and sex role taboos are the primary reasons why males and females are treated differently form birth, the behavioral sex differeneces of the infants themselves may also exert a subtle influence on the caregiver. For example, the mother's repeatedly reported tendency to provide boys with more proximal, tactile stimulation may be, in part at least, an inadvertent, unconscious compensatory response to the male's lesser cutaneous sensitivity. It may also express an effort on her part to provide containment for her more startle-prone male newborn" (p. 113).

In other words infant behavior encourages certain types of behavior on the part of the caretaker, which in turn encourages certain behaviors from the infant. This seems to be a true pattern of interaction--neither genetics nor environment playing an independent role. What is more, the behaviors are likely circular--and it is unclear which come first, caretaker activity or infant activity. It is probable that this type of interaction accounts for much of human behavior and more and more linguists and psychologists are acknowledging that it is futile to take extreme positions on the issue of Heredity vs. Environment. (This type of discussion has focused on behaviors as diverse as language development, criminal activity, intelligence, school achievement, personality characteristics, etc.) Farb (1974) has suggested that as equality between the sexes is reached, spoken language differences become

minimized. Sole (1976), however, in paraphrasing Margaret Mead notes, "the relevance of sex differentials in sociolinguistics lies in the fact that this variable features prominently in the structure of all human societies, no matter how much a culture may have modified, elaborated on, and, in some cases, even reduced the practical significance of these differences" (p. 137).

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